

Shyam Lal College

Project Title: साप्ताहिक बाजार :रोज का संघर्ष) खुली अर्थव्यवस्था में साप्ताहिक बाजारों का सामाजिक- सांस्कृतिक- आर्थिक और मनोवैज्ञानिक अध्ययन एवं उसकी प्रासंगिकता।

Project Code: SLC-101



बाजार भीतर बाजार

Findings (4-5 lines): यह हाट बाजारों से विकसित एवं उसका परिवर्तित आधुनिक रूप है जो औपनिवेशिक काल से ही हाशिए पर ढकेला जा रहा है। साप्ताहिक बाजार (असंगठित क्षेत्र) इसलिए व्यापक और विस्तृत हो रहे हैं क्योंकि संगठित क्षेत्रों में नये रोजगारों का सृजित नहीं हो रहे हैं। यह बाजार पाइरेटेड प्रोडक्ट सहित वैसी वस्तुओं को प्रश्रय देता है जिसकी किसी तरह की गारंटी उपभोक्ताओं को नहीं दी जाती। यह बाजार छोटे – छोटे कारोबारियों के उत्पादों को बेचता है और इस अर्थ में कुटीर अर्थव्यवस्था से जुड़ा है।

Faculty: Dr. Praveen Kumar (History), Dr. Rajkumar Prasad (Hindi), Ms. Jyoti Chaudhary (Economics)

Mentor: Prof. Surender Kumar
Deptt. of Business Economics, Delhi-21
Email: surenderkumarbansal@hotmail.com

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Aparna Nidhi	English	6	Rahul	Economics
2	Pranav Kaushik	English	7	Rahul Dilip	Economics
3	Shivam Gupta	B.A. Prog.	8	Neelam Gahlot	Hindi
4	Supriya Kumari	Economics	9	Jaya Bharti	Hindi
5	Pandit Prakash	Hindi	10	Rajat Sharma	Hindi

Shyam Lal College Evening

Project Title: Forest Protection by Tribal Women's: An Efforts by Jamuna Tuddu

Project Code: SLC Eve.-101



Jamuna Tuddu

Jamuna Tuddu with her Forest Protection Committee Members (Tribal Ladies: *Santhal* Tribe of Jharkhand)

Findings (4-5 lines): In accordance with the “Women Environment and Development school of thought (which emphasizes a “special” relationship between women and environment) as well as the feminist political ecology theories (Vandna Shiva), the efforts of Jamuna Tuddu in Maturkham Forest in Jharkhand shows that the women in rural areas have an important role to play in community based conservation of resources and in promoting sustainable development. Environmental Protection is best possible, if efforts in this regard are initiated at local level.

Faculty: Dr. Ashwani Jassal (Political Science), Dr. Ram Roop Meena (Hindi),
Dr. Ritesh Bhardwaj (Political Science)

Mentor: Prof. M. P. Singh
34, Uttaranchal Apt.5, IP Extension, Patparganj, Delhi-110092
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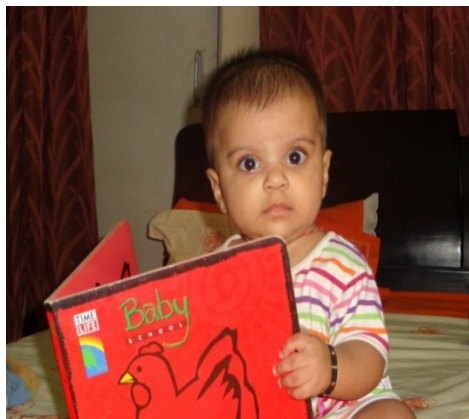
Students:

S.No.	Name	Department	S.No.	Name	Department
1	Ekta Rani	Pol. Science	6	Jyoti Dhiryan	Pol. Science
2	Rameshwar Prasad Sahu	Pol. Science	7	Bharti	Pol. Science
3	Hridyanand Chauhan	Pol. Science	8	Shivani	Pol. Science
4	Nalin	Pol. Science	9	Irfan	B.A. Prog.
5	Priyanka	Pol. Science	10	Piyush Rajput	B.A. Prog.

Shyam Lal Evening College

Project Title: उपभोग संस्कृति, बाजार और बचपन

Project Code: SLC Eve.-102



बचपन की खोज

Findings (4-5 lines): भारतीय संदर्भों में वैश्वीकरण व उपभोग संस्कृति का 1-14 वर्ष के बच्चों पर प्रभाव को लेकर अभिभावक सकारात्मक व नकारात्मक दोनों प्रकार के मत रखते हैं।

- ❖ वैश्वीकरण के फलस्वरूप तकनीकी विकास ने बच्चों के सीखने की प्रक्रिया को आसान, सुविधाजनक, मनोरंजनपरक बनाया है।
- ❖ उपभोग संस्कृति के फलस्वरूप भोग-विलास की प्रवृत्ति बढ़ी है।
- ❖ विपणनकर्त्ताओं द्वारा बाल श्रम व अन्य नैतिक-संवैधानिक मान्यताओं का अनुपालन नहीं किया जा रहा है।
- ❖ विज्ञापन उद्योग द्वारा बच्चों का प्रयोग भावनात्मक शोषण हेतु किया जा रहा है।

Faculty: Dr. Reenu Gupta (Hindi), Dr. Aditya P Tripathi (Commerce), Dr. Preeti Shukla (English)

Mentor: Professor (Dr.) Ramesh Gautam, Deptt. of Hindi, University of Delhi.
Email: proframeshgautam@yahoo.co.in, rameshgautam.du@gmail.com

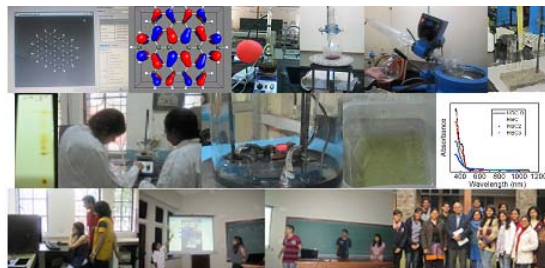
Students:

S.No.	Name	Department	S.No.	Name	Department
1	Anil Kumar	B.A.(HN-Hons)	6	Soniya	B.A.(HN-Hons)
2	Athar Jamal	B.A.(HN-Hons)	7	Sonu Kumar	B.Com.(P)
3	Pranshu	B.Com.(H)	8	Manish Sisodiya	B.Com.(P)
4	Sanchna	B.A.(HN-Hons)	9	Sumit	B.A.(Prog)
5	Shikha Raghav	B.Com.(H)	10	Hina	B.A.(HN-Hons)

St. Stephen's College

Project Title: Molecular Design, Synthesis, Characterization and Applications of Macrocyclic Compounds

Project Code: SSC -101



Molecular Design, Synthesis, Characterization and Applications of Macrocyclic Compounds

Findings (4-5 lines): The macrocyclic molecule HBC has been synthesized optimizing the conditions for its synthesis by carrying out numerous experiments under varied conditions. It has been characterized using spectroscopic techniques. Thin films of the compound on glass substrate have been obtained by thermal evaporation. Junction analysis of the metal-organic layer has been carried out by studying current-voltage curves theoretically and experimentally with the final aim of making a semiconducting device with tailor-made properties. HBC analogues are in the process of being synthesized. Theoretical studies on HBC and its substituted analogue have also been carried out to establish their optical and semiconducting properties.

Faculty: Dr. Vibha Sharma (Chemistry), Dr. Ekta K Arora (Chemistry), Dr. Geetanjali Sethi (Physics)

Mentor: Dr. Bodh Raj Mehta, Schlumberger Chair Professor,
Physics Deptt, IIT Delhi
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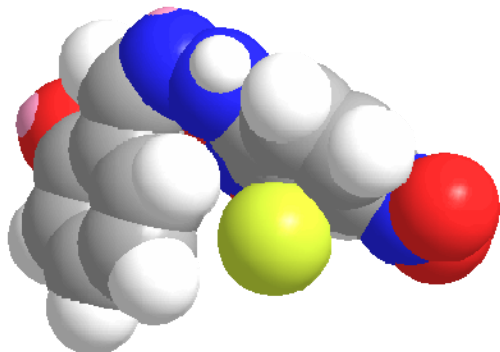
Students:

S.No.	Name	Department	S.No.	Name	Department
1	A Anuradha	Chemistry	7	M Varun	Chemistry
2	Bharat Tandon	Chemistry	8	Tanvi Garg	Chemistry
3	Kriti Kashyap	Chemistry	9	Namrata Dutta	Physics
4	Mallika Kumar	Chemistry	10	Rashika Gupta	Physics
5	Sona Gandhi	Chemistry	11	Ojasvi Khare	Physics
6	Divya Dhingra	Chemistry			

St. Stephens College

Project Title: Development of new reagents for detection of anions in water

Project Code: SSC -102



Structure of a fluoride complex with synthesized sensor molecule



Solution of receptor with various anions. Colour was observed only in the presence of fluoride ions

Findings (4-5 lines): The central aim of this project is to develop innovative and universally applicable anion sensors by deploying principles of molecular recognition and molecular receptors. A variety of molecular receptors based on calix[4]arene, calix[4]pyrrole and other structural motif were prepared. The receptors were characterized using spectroscopic techniques such as HRMS, IR, and NMR. The colorimetric sensors have shown selectivity towards fluoride, iodide and cyanide ions.

Faculty: Dr. Satish Kumar (Chemistry), Dr. Violet R Macwan (Chemistry),
Dr. K M Mathew (Chemistry), Dr. Maria Thomas (Mathematics)

Mentor: Dr. Gurmeet Singh
Deptt. of Chemistry, University of Delhi.
Email: gurmeet123@yahoo.com

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Garima Duggal	B.Sc. Prog.	8	Kalpana Malik	Chemistry
2	Saumya Silori	B.Sc. Prog.	9	Hitaish	Chemistry
3	Sonam	Chemistry	10	Mohamin B M Khan	Mathematics
4	Rocky Chhikara	Chemistry	11	Neha Singh	BSc. Prog.
5	Shikha Choudhary	Chemistry	12	Neha Lawrence	Chemistry
6	Seep Arora	Chemistry	13	Akash David	Chemistry
7	Charu Seth	Chemistry			

St. Stephens College

Project Title: Suggested Areas of improvement in the Shelters for the homeless in Delhi

Project Code: SSC -103



Mobile shelter for the homeless rickshaw pullers

Findings (4-5 lines): On the basis of the results of the demographic survey, and the fact that space for the construction of additional shelters is extremely difficult to procure, it was decided to work on the conversion of a rickshaw into a mobile home. The first two prototypes have been completed, and preliminary surveys/interactions with rickshaw pullers have indicated that the rickshaws have been extremely well received. Besides this, the project has created a model of multi-institution convergence, which has given ample opportunity of learning to the students.

Faculty: Dr. Jacob Cherian (Physics), Mr. Malay Neerav (History),
Dr. Kamna Pande (Physics)

Mentor: Dr. Amod Kumar
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Email: amodkumar@yahoo.com

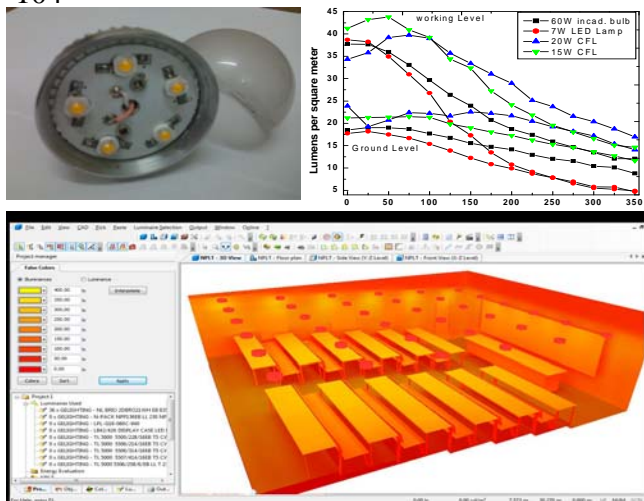
Students:

S.No.	Name	Department	S.No.	Name	Department
1	Aditi Dhawan	Physics	6	Anurag Advani	History
2	Alice J	Physics	7	Arushi Massey	History
3	Angad Yuvraj Singh	Physics	8	Nikhil Pandhi	History
4	Angela Joy	Physics	9	Sukriti Chopra	History
5	Vishakha Dayal	Physics	10	Saurabh Chaudhary	B.A. Prog.

St. Stephens College

Project Title: On the Energy, Light Characteristics and Economic Feasibility of LED luminaries

Project Code: SSC -104



(Above) Comparative study of the Lux data of LED light source with the conventional light sources. Lower figure presents the simulation performed on the Dialux software for a lecture room using LED source.

Findings (4-5 lines): Different light sources (conventional and LED) were studied for their design, material requirement, light intensity, power consumption, environmental factors etc. Innovative ideas for improving the thermal management in LED light sources like using Peltier element, fan and alternate switching method were evolved and experimented. Simulation studies for optimum illuminance using LED sources for lecture rooms are in progress using Simulation Software (Dialux). Subsidy mechanism on CFL and LED sources is studied and a microeconomic cost benefit analysis and policy framework is in progress for a government run initiative for promoting LED lamps.

Faculty: Dr. Harish Yadav (Physics), Dr. Sangeeta Sachdeva (Physics),
Dr. Anamitra Roy Choudhary (Economics)

Mentor: Prof. Vinay Gupta, Department of Physics & Astrophysics, University of Delhi.

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Anil Kumar	Physics	6	Motaram	Physics
2	Akash Kr. Singh	Physics	7	Ankit Dhanuka	Physics
3	Presly Mark Mathai	Physics	8	Abhishek Ghosh	Economics
4	Nymphea Maria Noronha	Physics	9	Pranav Gupta	Economics
5	Arjun Babu N	Physics	10	Sambodhi Sarkar	Economics

St. Stephens College

Project Title: Artifacts in Magnetic Resonance Imaging: Cause and Control

Project Code: SSC -105



Major achievements in medical imaging “The Magnetic Resonance Imaging (MRI)”

Findings (4-5 lines): The extrinsic and intrinsic causes for artifacts have been studied. Students acquired hands on experience in MRI imaging. Students have gained knowledge about the other medical imaging techniques also. The Physics behind the technique has been studied. To control the motion artifacts, **computational methods such as parallel imaging techniques** are being implemented.

Faculty: Dr. Jacob Cherian (Physics), Ms. Sangeeta Sethi (Computer Science),
Dr. GBVS Lakshmi (Physics)

Mentor: Dr Nittin R. Parkhe.
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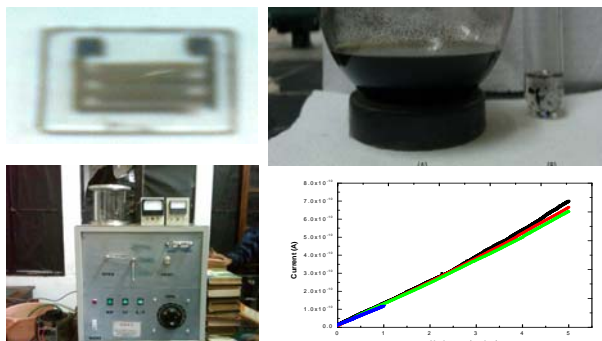
Students:

S.No.	Name	Department	S.No.	Name	Department
1	Archisman Pradhan	Physics	6	Princy P John	Physics
2	Priyanka Das	Physics	7	Shweta M George	Physics
3	Dhruv Sharma	Physics	8	Anil P Gharge	Physics
4	Miriam Rojy	Physics	9	Dhritiman Chakraborty	Physics
5	Yogesh Yadav	Physics			

St. Stephens College

Project Title: Devices based on Photomicro lithography and Nano Carbon Materials

Project Code: SSC -106



(Clockwise from left): Device based on Single Walled Carbon Nano-Tubes (SWNTs); Soluble SWNTs adduct; I-V Characteristics of the device; and thermal evaporation Vacuum system for photolithography used.

Findings(4-5 lines): The Novolak resins required were prepared by the students and blended with photoactive compounds (PAC) to prepare the photoresist. Masks at micron-level were printed using a laser printer (Masks required for Microlithography are prohibitively costly). A modest version of the PLG apparatus has been set up in the college. Vapor deposition of Aluminium has been carried out by the students. Soluble Fullerenes, C₆₀ and SWCNTs adducts have been prepared and they have been characterized using among others by Laser Raman Spectroscopy and their I-V parameters determined. The above work is aimed at making devices at micron level.

Faculty: Dr. S V Eswaran (Chemistry), Dr. Shabnam Johry (Chemistry),
Dr. Harish Yadav (Physics)

Mentor: Dr. R. Muralidharan
Director, Solid State Physics Laboratory (SSPL), Defence Research &
Development Organisation (DRDO), Ministry of Defence, GOI
Email: muralidharan@sspl.drdo.in

Students:

S.No.	Name	Department	S.No	Name	Department
1	Alan Stanley	Chemistry	6	Snigdha Sabharwal	Physics
2	Shambhavi Pratap	Chemistry	7	Parichaya Majumdar	Physics
3	Teesta Dasgupta	Chemistry	8	Shreya Arya	Physics
4	Rumela Banarjee	Chemistry	9	Saloni	Physics
5	Mrittunjoy G Majumdar	Physics	10	Manpreet Kaur	Physics

Sri Aurobindo College (M)

Project Title: Green Banking & Sustainable Development, The Need of Today

Project Code: SAC -101



Figure 1 Green Banking and Sustainable Development: The Need of Today

Findings (4-5 lines): **1) Preparedness of Indian banks:** Green banking gives environmental benefits and helps in reducing carbon foot prints. It is no more a **zero –sum game**. Going green is a wonderful and judicious combination of operational improvements and technology and changing client’s habits along with inculcating a shared vision regarding saving the planetoidn comparison to their global peers, have largely been slow in responding to environmental and sustainable concerns and issues despite of their exposure to associated risks and opportunity to create new business avenue.**2) Implementation of enviromental initiatives : 93%** of banks indicated the implementating enviromental initiatives with respect to making their operations more sustainable and **Initiatives of offerings of Green Products and services is claimed by 70% .3) Key Drivers:**The key drivers of initiating green banking which are pointed by Indian bankers are Enhanced reputation,global opportunities to go green and preparedness for future compliance of mandates and regulations which are likely to be passed in backdrop of severity of the situation of global warming and climate change.**4) The Main Gaps Identified by the Indian Banks are requiring directives from regulatory bodies:**The results of one to one meetings and group meetings led to the identification of some significant gaps, which require directives and commands from regulatory bodies.These include:Awareness and consciousness on sustainability issues, international guidelines and frameworks,Sustainability reporting - formal frameworks and lucid and clear policies pertinent for banks operating in India,Training and development of relevant skills within bank employees so that they can use in core banking operations.**5) There is a strong opinion of Indian bankers that ,to address each of these gaps, Reserve Bank of India should come out with constructive and productive policy recommendations to facilitate and assist the evolution from the existing conventional business models towards comprehensive and sustainable practices to realize the goal of sustainable economic development and will decarbonize the economy.**

Faculty: Dr. Namita Rajput (Commerce), Dr. Meenakshi Gupta (Commerce),
Dr. Pramod Kumar (Chemistry)

Mentor: Prof. Muneesh Kumar, Deptt. Of Financial Studies, University of Delhi, Delhi-21

Email: muneeshk@yahoo.com

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Pulkit Juneja	B.A. Prog.	6	Udit Gulati	B.Com. Hon
2	Ankleshwar Santwani	B.A. Prog.	7	Anshul	B.Com. Hon
3	Monika Nehra	B.A. Prog.	8	Niharika	B.Com. Hon
4	Narendra Giri	B.A. Prog.	9	Rishabh Garg	B.Com. Hon
5	Aakash Wadhwan	B.A. Prog.	10	Khyaati	B.Com. Hon

Sri Aurobindo College

Project Title: Environmental Crisis - Green Economic Solution

Project Code: SAC -102



Cow dung and Bio-Waste to Hot Selling Cakes -- Bio-Gas

Findings (4-5 lines): A Bio-Gas plant has been commissioned in the college generating Bio-Fuel for staff room kitchenette from Bio-Waste of college canteen. As per the survey conducted in the past months reveal lack of awareness amongst the masses and even in the educated class. Study data also reveals the unwillingness of Businessmen to segregate the garbage as they feel that it should be done by the govt. agency. The study data revealed that the calorific value of Bio Gas is 52000KJ/Kg as compared to 46000KJ/Kg of LPG and it costs around Rs 20/Kg as compared to Rs 27.50Kg of subsidised LPG. The study also reveals the unwillingness of automobiles manufacturers for not using Bio-Gas as non standardisation of the same by concerned authorities.

Faculty: Dr. Meeta Mathur (English), Dr. Rajiv Chopra (Commerce), Dr. Sangeeta Kaul (Chemistry)

Mentor: Mrs. Pamposh Bhat, International Finance Corporation, World Bank Group Advisor, Climate Change Adaptation Programme
Ph : +(91)9810744555, Email: bhat.pamposh@gmail.com

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Medha	B.A. Hons.	6	Chetna	B.A.Hons.
2	Harshit Sharma	B.Com. Hon.	7	Priya	B.Sc Phy. Science
3	Kartik Mathur	B.A. Prog.	8	Shefali Mathur	B.Sc Phy. Science
4	Tanusha	B.Sc. Life Science	9	Sudisha	B.Sc Life Science
5	Riddhima	B.Sc.Phy.Science	10	Somya	B.A.Hons.

Sri Aurobindo Evening College

Project Title: Strengthening Psychological Capital for Sports Person

Project Code: SAC Eve-101



Sushil Kumar, 2 times Olympic Medalist in Wrestling, with Dr.Mahesh Darolia and Mr.Pragyendu.

Findings(4-5 lines): The result shows that 5 performance dimensions like quality of management, team management, behavioral implication, mental toughness and well-being were differently influenced by four dimensions of psychological capital like hope, optimism, resilience and self-efficacy. But psychological capital as a whole does not predict its influence independently on the performance dimension. Quality of management is influenced by both self-efficacy and optimism, while team management was largely influenced by optimism.

Faculty: Dr. Pragyendu (Psychology), Dr. Mahesh Darolia (Psychology),
Dr. Vivek Chaudhary (Physical Education)

Mentor: Dr. N.K. Chadha
Deptt. Of Psychology, University of Delhi
Ph: 011-27666285, 27667725, Email: nkc_headpsychology@yahoo.com

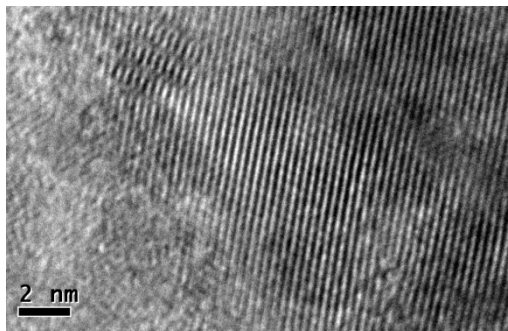
Students:

S.No.	Name	Department	S.No.	Name	Department
1	Sanya Girdhar	App. Psychology	6	Kamaldeep	App. Psychology
2	Tanushree Mehra	App. Psychology	7	Ganga Tiwari	App. Psychology
3	Ritesh Kataria	App. Psychology	8	Priyanka Tamuly	App. Psychology
4	Urvashi Balhara	App. Psychology	9	Upasna Vashisth	App. Psychology
5	Upmanyu Kumar	App. Psychology	10	Anuradha Singh	App. Psychology

Sri Guru Tegh Bahadur Khalsa College

Project Title: Role of nano-crystals in energy harvesting and biomedical applications

Project Code: SGTB-101



The layered structure of SnS of nano-crystalline thin film is clearly visible in the High Resolution Transmission Electron Microscope (HRTEM) image. The spacing between the layers confirms the (040) orientation of the film. Studies on performance of the samples as solar cells are ongoing.

Findings (4-5 lines): The refractive indices of SnS thin nano-crystalline films is explainable using the single oscillator model and is found to be directly proportional to the grain size. Result shows how the refractive index is strongly co-related to the ordering in the sample.

Faculty: Dr. Nidhi Sinha (Electronics), Dr. P Arun (Electronics), Dr. P S Jassal (Chemistry)

Mentor: Dr. Binay Kumar
Deptt. of Physics & Astrophysics, University of Delhi.
Ph: 9818168001, Email: bkumar@physics.du.ac.in

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Amit	Chemistry	6	Taruna Verma	Electronics
2	Amit Jakhar	Chemistry	7	Vibhav	Electronics
3	Ayushi Nirwan	Chemistry	8	Vijay Kumar	Electronics
4	Shakti Garg	Chemistry	9	Yojna	Electronics
5	Ashu Jagdamni	Electronics	10	Malini Jain	Phy. Science

Sri Guru Tegh Bahadur Khalsa College

Project Title: Conceptualizing Women Sports in the context of Sports Economics and Marketing of Professional Sports in India: Performance Study of Gender based athletes in respect of their Advertising & Promotion Value

Project Code: SGTB-102



Project Team: (1) Dharmendra Kumar, Arjun J Chaudhuri, Dr. Smita Mishra with Saina Nehwal at Hyderabad. (2) Teachers and Students during their survey at Junior National Badminton Championship held at Chandigarh

Findings (4-5 lines): International Badminton Player, Ms. Saina Nehwal is the primary subject of our project which has carried out extensive survey and lengthy interviews to determine how Parental Support is responsible for developing an exceptional athlete who is able to mix both sporting performance and commercial success with equal ease. At this nascent stage of her career, Ms. Saina Nehwal is able to sustain her sporting performance, and provide value to all the advertisers who have invested time, cost and effort because of the A&P Value she has created with the parameters we have explored in our surveys. The two-fold objective of the project is to determine why and how commercial success could reach a broader pool of female athletes who are exceptional in their own right but may fall short of the commercial demands of A&P; and what is the impact of sporting icons like Saina Nehwal and Mary Kom have on backward regions in India where gender insensitivity is rampant.

Faculty: Dr. Smita Mishra (Hindi), Dr. Nachiketa Singh (Political Science),
Mr. Dhramendra Kumar (Mathematics)

Mentor: Mr. Arjun J Chaudhuri,
Sports News & Current Affairs Expert, Moderator, Anchor & Commentator,
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Students:

S.No.	Name	Department	S.No.	Name	Department
1	Gulista Gauhar	B.A. Prog.	6	Siddhant Sehrawat	Pol. Science
2	Harleen Kaur	Mathematics	7	Vandana Chaturvedi	Pol. Science
3	Himanshu Chugh	Mathematics	8	Vipul Balutia	Economics
4	Pragya Sahni	Mathematics	9	Aanchal	Pol. Sci
5	Mohit Singh	Hindi	10	Vishwajeet	Hindi

Sri Guru Tegh Bahadur Khalsa College

Project Title: Fluorescent Powder Compositions for Developing Latent Fingerprint

Project Code: SGTB-103



A fingerprint developed on the blade of a knife by the novel composition

Findings (4-5 lines): A single composition for detecting fingerprints on unique, difficult and unconventional crime scene evidence has been innovated. It lifts fingerprints on evidence removed from arson sites. It also detects fingermarks on those crime scene exhibits that have been deliberately or accidentally wetted or have been buried under soil/snow. Further, it develops fingerprints on compact disks without spoiling the stored files. The composition is non-toxic and indigenous. It is suited to work under Indian conditions. The fluorescent nature of the composition assists in developing weak and fragmented fingerprints that are often encountered at crime scenes. The technique requires neither a sophisticated instrument nor costly equipment. It may be operated even by an amateurish hand. The present innovation provides a wider scope and better opportunities to forensic scientists in solving crime cases.

Faculty: Dr. G S Sodhi (Chemistry), Dr. Gurvinder Kaur (Chemistry),
Dr. Komal Kamra (Zoology)

Mentor: Sh. V.N. Sehgal, Former Director, Central Forensic Science Laboratory,
Central Bureau of Investigation, Ministry of Home Affairs, Government of India.
Ph: 9958712080

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Manmeet Kaur	Chemistry	6	Abhinav	Zoology
2	Simran Kaur Talwar	Chemistry	7	Vaishali Jain	Zoology
3	Riya Pangasa	Chemistry	8	Ruchika Tripathi	Zoology
4	Ajay Mohan Singh Rawat	Chemistry	9	Nitesh Lekh Dutta	Zoology
5	Jasvinder Kaur	Chemistry	10	Feroza Rehman	Zoology

Sri Guru Nanak Dev Khalsa College

Project Title: Youth Empowerment – What is means to youth and its Implications for Educational Institutions

Project Code: SGND-101



Findings (4-5 lines): The project titled **Youth Empowerment: What it means to young minds and Implications for Educational Institutions** is an endeavour to understand youth's perception of empowerment and their concerns. Preliminary results show that city youth consider empowerment as individualistic and rural youth as collective. Today's youth want freedom of expression and desire active participation in decision making. Lack of awareness and adult attitude are perceived as barriers to empowerment. Youth today are confident of their ability to earn a living for themselves and getting a job scales very low in their list of worries.

A significant outcome from this project is the initiative taken by the college to provide in house internship opportunities to students to enable them to gain experience and earn stipend.

Faculty: Dr. Abhishek Sharma (English), Dr. Gita Lakhanpal (English),
Dr. Neeta Dhingra (Commerce)

Mentor: Dr. Shivani Bhardwaj
Programme Director Sathi All for Partnerships
Email: safp.sb@gmail.com

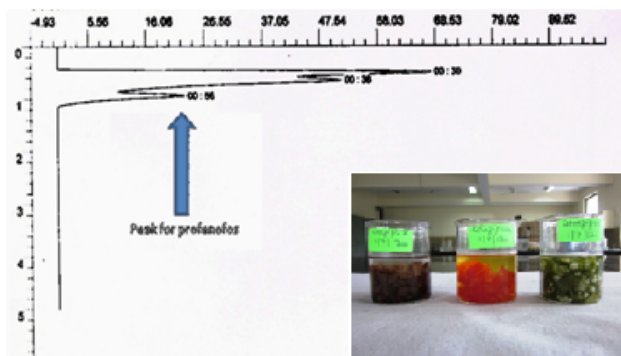
Students:

S.No.	Name	Department	S.No.	Name	Department
1	Manisha	English	6	Anshul Aggarwal	Economics
2	Manya Narang	English	7	Deeksha Suri	English
3	Jyoti Garg	English	8	Mayank Chhabra	Commerce
4	Md. Faizan Moquim	English	9	Raunak Randhawa	Commerce
5	Shaina Gungnani	English			

Shaheed Rajguru College of Applied Sciences for Women

Project Title: An Assessment of consumers' exposure to pesticide in conventional vegetables and vegetables sold with the 'organic' tag in Delhi NCR region, India

Project Code: SRCA-101



Gas chromatogram showing pesticide peak in vegetable samples (inset)

Findings (4-5 lines): Based on the survey in the NCR region, it was found that farmers were aware of the adverse effects caused by chemical pesticides on health. However, due to unavailability of bio-pesticides, they are compelled to use chemical herbicides, fungicides and insecticides viz. cypermethrin, profenofos, endosulfan, chlorantraniliprole, glyphosate, acetamiprid and butachlor. Endosulfan and profenofos were found in some of the vegetable samples during the preliminary Gas Chromatography analysis. A significant amount of oil was also extracted from samples collected from local markets of north Delhi, which may indicate that it is used to maintain freshness of vegetables. Usage of organic vegetables across the Delhi NCR region is not very popular. Even the availability of organic vegetables which comply by the Government norms are in dearth.

Faculty: Dr. Jasjeet Kaur (Chemistry), Dr. Ranjana Singh (Food Technology),
Ms. Daya Bhardawaj (Instrumentation)

Mentor: Dr. (Ms) Prem Dureja
Division of Agricultural Chemicals IARI
Ph: 9810548174, Email: pd_dureja@yahoo.com

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Aparna Sahay	Instrumentation	6	Garima Gandhi	Food Tech.
2	Khushboo Gupta	Instrumentation	7	Nishi Singh	Food Tech.
3	Nupur Khanna	Instrumentation	8	Pooja Tiwari	Food Tech.
4	Sneha Bhatnagar	Instrumentation	9	Shruti Sharma	Food Tech.
5	Sushmita Singh	Instrumentation	10	Suksham Sharda	Food Tech.

Satyawati College (Evening)

Project Title: An Exploration of the Issues and Concerns of College-Going Young Adults through interactive Theatre Activities

Project Code: ST Eve-101



Students articulating their issues through improvisation at a participatory workshop

Findings(4-5 lines): 1. The non-judgmental and non-threatening platform is a valuable addition to academic life as it is based on a vision which allows freedom of expression to students.
2. Issues identified: Security of women, Identity Crisis of students, Generation gap, Teachers' role and vision and the interpersonal relationships.
3. Skills acquired by the students: Designing and conducting workshops, preparing and interpreting questionnaires, coverage of sessions through still and video cameras.

Faculty: Dr. Akhilesh Kr. Yadav (Economics), Dr. Rameshwar Singh (English), Dr. Niranjana Mahto (Hindi), Dr. Satyaprakash Singh (Hindi), Dr. Himanshu Singh (Economics)

Mentor: Dr. Tripurari Sharma
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Students:

S.No.	Name	Department	S.No.	Name	Department
1	Rakhi	B.Com. Hons.	6	Bhupesh	History
2	Silky Jain	Economics	7	Himanshu Negi	B.Com. Prog
3	Aishwarya Mishra	B.Com. Prog	8	Nisha Jain	English
4	Rohit	English	9	Subhash	B.Com. Prog
5	Ajit Kumar	English			

Satywati Evening College

Project Title: Emerging Gram Panchayat Leadership in Rajasthan: A comparative study of Banswada (ST), Ganganagar (SC) and Alwar (Gen) Distt.

Project Code: ST Eve-102



**The Reserch Team with Mrs. Shafia Khan,
the Zila Pramukh of Alwar District (Rajasthan)**

Findings (4-5 lines): The preliminary findings of the field investigation of the two districts namely Sri Ganganagar and Alwar in Rajasthan reveals that several offices of Sarpanch are run by proxy representatives, especially in the case of constituencies reserved for women. As regards the devolution of funds, the selection of beneficiaries and other developmental schemes, nepotism, casteism and corruption is rampant among the panchayat representatives.

Faculty: Dr. Ashutosh Kumar (Political Science), Dr. Bharat Singh (Economics),
Dr. Prabhat Mittal (Commerce)

Mentor: Dr. Yatindra Singh Sisodia
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Students:

S.No.	Name	Department	S.No.	Name	Department
1	Piyush Chandra	Pol. Science	6	Atul	English Hons.
2	Govind Kr. Jha	Pol. Science	7	Rajat Kr. Barnawal	B.Com Hons.
3	Komal Jaiswal	Pol. Science	8	Ankit Kr. Singh	Pol. Science
4	Shweta Shaleeni	Pol. Science	9	Vikas Kumar	Pol. Science
5	Ravi Shankar	Pol. Science	10	Numan Ahmed Khan Nazmi	Pol. Science

Shaheed Bhagat Singh Evening College

Project Title: Problems and Development of Slums: Students' Perspective

Project Code: SBS Eve-101



The Project Team interacting with residents of Panjra Pol slum in Mumbai.

Findings (4-5 lines): The Project team during their survey of two slums found that slums are manifestations of inequality, exploitation and social injustice in society. The slum dwellers are living in pathetic conditions. The welfare measures of government have not benefitted them much. All this has also created a situation wherein slums have become breeding ground for criminals. In the study it has been felt that there is urgent need for the development of slums so that slum dwellers can have a dignified living as guaranteed to the citizens of India by the Indian Constitution. This will also help in maintaining peace and harmony in society

Faculty: Dr. S K Sinha (Geography), Dr. S A Siddiqui (Economics), Dr. C S Dubey (English)

Mentor: Dr. Sudesh Nangia
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Students:

S.No.	Name	Department	S.No.	Name	Department
1	Gajendra Sah	Geography	6	Nidhi Bai	Geography
2	Anant Gautam	Geography	7	Rupam Jha	B.A. Prog.
3	Avinash Kumar	Geography	8	Madhuri Pandit	Pol. Science
4	Nitesh Kumar	Geography	9	Nupur Chaudhary	B.Com. P
5	G Navya Reddy	Geography	10	Sushant Malik	B.Com. P

Shyama Prasad Mukherjee College for Women

Project Title: Gendering Dalit migration and its Socio-Cultural Impact

Project Code: SPM -101



"Equality, Dignity and Fairness"

Findings (4-5 lines): Dalit migrants though have experienced an upward trend in their income and as an outcome improvement in education of their children back home and in the city, but still lag behind when it comes to higher level employment opportunities. The major reason is lack of proper counseling and guidance. We thereby plan to initiate a counseling centre which will help to widen their horizon.

Faculty: Dr. Shubha Parmar (History), Dr. Sadhna Sharma (Hindi), Dr. Priti Rai (Commerce)

Mentor: Mr. Chandrabhan Prasad
Eminent Wrier, Researcher, Dalit activist and thinker
Ph: 9873508485, Email: pioneercbp@yahoo.com

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Swarnima Pachaury	B.Com. Hons	7	Neha Patel	B.A. Prog.
2	Mahima Kapoor	B.Com. Hons	8	Pumpi Baghel	History Hons
3	Neha Shukla	B.Com. Hons	9	Roopa	History Hons
4	Anjali Jaswal	B.A. Prog.	10	Anu Tanwar	B.A. Prog.
5	Jaspreet Kaur	B.A. Prog.	11	Ashita	B.A. Hons.
6	Neha Bansal	B.A. Prog.			

Shyama Prasad Mukherjee College for Women

Project Title: An Exploratory Study of Environmental Awareness and Consumer Behaviour towards Eco-Friendly Household Products

Project Code: SPM -102

AWARE & CARE



Findings (4-5 lines): Using eco friendly products at home is simple, better and health friendly option. We found majority of the respondents were aware and concerned about the protection of the environment. But their participation in the form of use of eco-friendly household products is very less. It has been found out that lack of knowledge, assurance of the quality, cost factor and the availability of such eco- friendly household products are the main issues involved with their consumption. We would like to quote Denis Hayes, a famous environmental activist “The Power to save the planet rests with the individual consumer”.

Faculty: Dr. Rachna Dua (Geography), Dr. Jyoti Sharma (Education), Mr. Amulya (Econimcs)

Mentor: Dr. R.B. Singh
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Students:

S.No.	Name	Department	S.No.	Name	Department
1	Khyati Kalra	B.A. Prog	6	Jyotsana Arora	B.El.Ed
2	Oshita Pandita	B.A. Prog	7	Aparna Minz	B.El.Ed
3	K L Manogyna	B.A. Prog	8	Swati Sharma	Economics
4	Annu Yadav	B.El.Ed	9	Adyasa Rout	Economics
5	Divya Yadav	B.El.Ed	10	Sahibjeet Kaur	Economics

Shyama Prasad Mukherjee College for Women

Project Title: A study of Student Absenteeism in Primary School in Delhi and NCR (SPM-103)

Project Code: SPM -103



Observations at MCD School, Shivaji Park.

Findings (4-5 lines): Preliminary Findings:

1. There is different rate of absenteeism in different zones of Delhi.
2. Absenteeism is greatly affected by the time/month of the year.
 - a) Visit to village- harvest season, marriage, festival etc.
 - b) Health problems
3. Absenteeism is affected by time table of the school.
4. Absenteeism is affected by the school authorities.
 - a) School principal
 - b) Class teacher
5. Absenteeism is affected by home environment.

Faculty: Ms. Deepa Idnani (B.El.Ed.), Dr. Ekta Bhambri (Applied Psychology),
Ms. Tripti Anand (Maths)

Mentor: Dr. Madhumita Bandopadhyay, Author and Researcher
Associate Professor, National University of Educational Planning and
Administration (NUEPA) Sri Aurobindo Marg, New Delhi.
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Students:

S.No.	Name	Department	S.No.	Name	Department
1	Medhavi	App. Psychology	6	Madhubala	B.El.Ed
2	Saloni	App. Psychology	7	Tanu Chugh	B.El.Ed
3	Nishtha	App. Psychology	8	Sneha Jha	B.El.Ed.
4	Palak	App. Psychology	9	Nupur	B.El.Ed.
5	Swatee	App. Psychology	10	Payal Yadav	B.El.Ed.

Shaheed Sukhdev College of Business Studies

Project Title: Investor sentiment in the Indian Financial Market: An empirical study

Project Code: SSCB -101



3 Faculty members and 10 Student members of the Innovation Project Team

Findings (4-5 lines): Quantifying investor sentiment has always been a challenge because of its qualitative and behavioral nature. Throughout the globe, attempts have been made to capture the sentiment through some index by using some proxies reflecting investor sentiment. However, the efforts in India have been insignificant. This study is an attempt to create an index which can be used by various players and regulators. The findings based on an index created using principal component analysis are specified. Correlation between the returns on Sensex and the Index is 0.86. Analysis of historical data reveals that for periods with level of investor sentiment lesser than 1 standard deviation below its mean value, average next quarterly returns on Sensex have been 4.82% and for periods with level of investor sentiment more than 1 standard deviation above its mean value, average next quarterly returns on Sensex have been -0.84%.

Faculty: Dr. Kumar Bijoy (Finance), Dr. Sameer Anand (Operational Research),
Ms. Priya Gupta (Computer Science)

Mentor: Mr. Dhirender Kumar, CEO, Value Research
Ph: 9810246343, Email: dhirendra@valueresearch.in

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Lakshay Pandhi	BFIA	6	Nidisha Varshney	BFIA
2	Vivek Kansal	BFIA	7	Ravisha Kathuria	BFIA
3	Puneet Gupta	BFIA	8	Narottam Garg	BFIA
4	Piyush Gupta	BFIA	9	Ayushi Sharma	BFIA
5	Manik Lakhani	BFIA	10	Abhishek Jain	BFIA

Shri Ram College of Commerce

Project Title: Aahaar

Project Code: SRCC -101



Reclaiming Lives, the Culinary Way

Findings (4-5 lines): The primary finding that will help in achieving self-sustainability of this project is the close proximity of demand and supply. The girls cooking in the kitchen of the shelter home will cater to the needs of the other inmates living there; hence, the demand is regular and long-term in nature. Extensive demand surveys and cost analysis have been conducted for the same, and qualified trainers have been identified to provide the chosen girls with training in bulk Indian cooking methods.

Faculty: Dr. Abhay Kumar (Political Science), Ms.Sonal Thukral (Commerce),
Ms. Priyanka Bhatia (Economics)

Mentor: Ms. Shruti Saxena, KPMG
Ph: +91-9810593488, Email: shrutisaxena@kpmg.com

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Aakash Kapoor	B.COM(H)	6	D C Tarun	B.COM(H)
2	Aarushi Prabhakar	ECO(H)	7	Priyanka Ravishankar	ECO(H)
3	Agrata Gupta	B.COM(H)	8	Shreysi Mehendiratta	ECO(H)
4	Ankit Sawhney	B.COM(H)	9	Surbhi Seth	ECO(H)
5	Arjun Sahai	B.COM(H)	10	Twinkle Uppal	B.COM(H)

Shivaji College

Project Title: University Social Networking Site for D.U. Community

Project Code: SWC -101



Findings (4-5 lines): The questionnaire as well as interviews of the teachers and faculty of Delhi University is been conducted to get a holistic idea of the requirements of the student as well as the DU community. Though the research is still in progress and anything cannot be inferred conclusively, yet the trends are clear. The teachers, just as the student community, agree to the scarcity of any platform for the student-teacher interface. The teachers clearly indicate that today in the era of globalization and competitive world, students require more than class-room education. They require skills for negotiating the everyday life skills. The internet is the viable and potential option that can be chosen to enhance the relationship between the student-teacher communities.

As far as the technical work on the social networking website development is concerned like Development of site, Development of applications, Purchase & Maintenance of server and Publication of site, it is close to getting tested and launched and which can be later opened for the wider community.

Faculty: Dr. Pramod Sagar (Physics), Ms. Neena Malhotra (Sociology), Ms. Ketaki Dwivedi (Sociology)

Mentor: Prof. Vinay Gupta (Department of Physics & Astrophysics)
University of Delhi, Delhi-7
Ph: 9811563101, Email: drguptavinay@gmail.com, vgupta@physics.du.ac.in

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Hemant Raj Khandgle	Physics	6	Anuj Kumar	Phy. Science
2	Amit Ranjan	Physics	7		
3	Ashish Gaur	Physics	8		
4	Ashish Kumar	Physics	9		
5	Ram Kumar	Physics			

Sri Venkateshwara College

Project Title: Survey of Tree Species in Delhi Region and Screening of Selected Medicinal Plants for Anti-Cancer Activity

Project Code: SVC -101



Clockwise students collecting plant material, processing, extracting the bioactive compounds and interacting with the mentor.

Findings (4-5 lines): The central aims of this innovative project were to carry out a survey of tree species present in Delhi and to check certain plants for anti-cancer activity. Based on several literature-based surveys, it was found that during the past 50 years, 215 tree species from 65 families had been introduced to Delhi region while 12 species from 9 families had locally disappeared. Along with this, 250 medicinal tree species were found to currently exist in Delhi. Regarding the second objective, anticancer and antimicrobial activities are currently being investigated on particular plants, the findings of which will be published in the last project report.

Faculty: Dr. P. Hemlatha Reddy (Bio-Chemistry), Dr. Amit Vashishtha (Biology),
Dr. N.V.S.R.K. Prasad (Botany), Dr. Brijesh Rathi (Chemistry)

Mentor: Prof. Daman Saluja
Dr. B R Ambedkar Centre for Biomedical Research, Delhi.
Ph: + 91-11-27666272, 27667151, Fax: + 91-11-27666248
Email: dsalujach@yahoo.com

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Aishwarya Sharma	Botany	6	A Krishna	Botany
2	Ayesha Raaj	Life Science	7	Shreya Nandi	Chemistry
3	Ayesha Sehrawat	Biological Science	8	Jaspreet Kaur	Chemistry
4	Sheshadri Sinha	Biological Science	9	Vinita Gurnani	Chemistry
5	Shruti Sharma	Botany	10	Harsh Bhatia	Chemistry

Sri Venkateshwara College

Project Title: Screening of Cyanobacteria for Antimicrobial activity and Explore its Biosynthesis regulated by Heterochromatin

Project Code: SVC -102



**1. A journey to collect cyanobacteria 2. Bacteria Inoculation for Bioassay 3. Discussion with Mentor
4. Maintenance of cyanobacteria culture**

Findings (4-5 lines): Cyanobacterial samples were collected from different places including Delhi and NCR were screened for antimicrobial activity. The production of bioactive molecules is a factor of age, estimated by growth behaviour. During preliminary findings for solvent selection it was observed that methanolic extract had more bactericidal property than others. Bioassay of methanolic extracts using both pathogenic and non-pathogenic bacteria were done and observed intracellular methanolic extract from same genus collected from different habitats didn't show same activity against bacteria, suggesting that may be the production of bioactive molecules is niche and species specific. The Isolated strains were cultured in BG11 and CHU-10 medium at 28 °C under continuous irradiance with periodic shaking and provided stresses (nitrate, phosphate & sodium chloride) to estimate expression level of protein and interaction regulating protein with non-coding RNA is under process.

Faculty: Dr. Deepali (Botany), Dr. K V Giri (Zoology), Dr. N.V.S.R.K. Prasad (Botany)

Mentor: Dr. R.C. Kuhad
Deptt of Microbiology, South Campus, Delhi.
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Students:

S.No.	Name	Department	S.No.	Name	Department
1	Pooja Dabas	Biological Science	6	Krishna Jakhad	Life Science
2	Sonam Kumari	Biological Science	7	Hitesh Aggarwal	Life Science
3	Shweta Tripathi	Biological Science	8	Indu Malik	Zoology
4	Sachin Chauhan	Life Science	9	Manoj Kr. Gautam	Botany
5	Anshu Vats	Life Science	10	Naveen Kumar	Botany

Sri Venkateshwara College

Project Title: Comparative Anti-oxidant Profiling of Various Indian Rice Cultivars in Response to Salinity stress.

Project Code: SVC -103



Rice: A Journey from Land to Lab

Findings (4-5 lines): Our preliminary findings indicate that there were substantial differences between the morphological, biochemical and physiological parameters of all Indian varieties studied. Salt sensitive varieties exhibited high Na⁺ accumulation, and increased activity of antioxidant enzymes like superoxide dismutase, glutathione reductase, catalase, peroxidase and proline as compared to salt tolerant varieties. The above findings will be beneficial for agriculturists and biotechnologists to select the appropriate variety, either to be grown or genetically engineered.

Faculty: Dr. Neeti Mehla (Botany), Dr. Kameshwar Sharma YVR (Bio-Chemistry), Dr. Pragya Gahlot (Chemistry), Dr. Nandita Narayansamy (Bio-Chemistry), Dr. NVSRK Prasad (Botany)

Mentor: Dr. Ashwani Pareek, Associate Professor, School of Life sciences, JNU.
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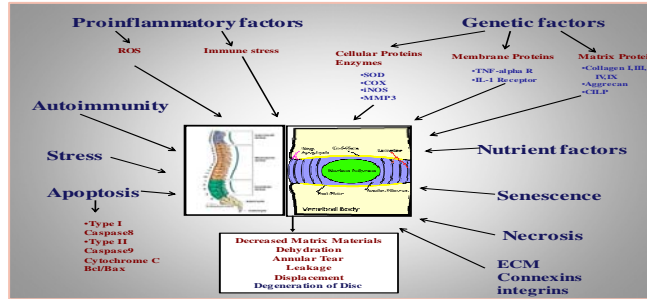
Students:

S.No.	Name	Department	S.No.	Name	Department
1	Manisha Jain	Bio. Science	6	Pooja Bisht	Botany
2	Vinita Sindhi	Bio. Science	7	Deepika	Botany
3	Pankaj Kumar	Life Science	8	Mangleshwar Singh	Chemistry
4	Deepti Josula	Life Science	9	Priyanka Hooda	Chemistry
5	Vartika Gupta	Bio. Science	10	Twinkle Sethi	Statistics

Sri Venkateswara College

Project Title: Screening of Indian population for possible polymorphisms in candidate genes of extracellular matrix proteins that could lead to Disc degeneration leading to herniation

Project Code: SVC -104



A model showing the multifactorial pathophysiology of disc degeneration-factors may behave independently as initiators or promoters or both.

Findings(4-5 lines): The avascular intervertebral disc is supported by the Extra cellular Matrix. Binding/attachment sites identified of all ECM proteins identified, Exonic regions selected and Primers designed. The histopathological study of collagen in intervertebral disc showed very loosely packed ECM with chondrocytes and fibroblasts. Statistical data on the prevalence of low back pain analysis shows the prevalence of low back pain is about 60.65% and also shows that injury is not a cause for the pain.

Faculty: Ms. Kavitha Rajsekar (Bio-Chemistry), Dr. Meenakshi Kuhar (Bio-Chemistry), Dr. Nandita Narayansamy (Bio-Chemistry), Dr. Shalini Sen (Bio-Chemistry), Ms. J. Lalitha (Statistics)

Mentor: 1. Dr. S. Rajasekaran, Chairman, Department of Orthopaedics and Spine surgery Ganga Hospital Coimbatore. Email: rajasekaran.orth@gmail.com
 2. Dr. Sandeep Vaishya, Department of Neurosurgery- Fortis Hospital-Delhi Email: svaishya@hotmail.com

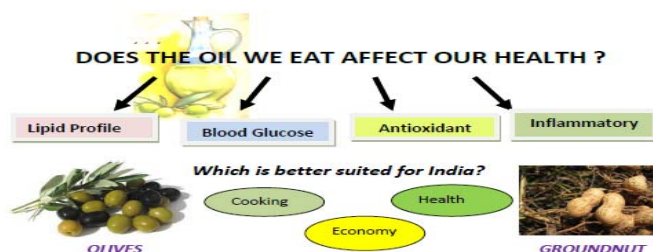
Students:

S.No.	Name	Department	S.No.	Name	Department
1	Arshiya Bhatt	Bio-Chem	6	Kashish Singh	Bio-Chem
2	Pallavi Deolal	Bio-Chem	7	Jasmeet Kaur	Bio-Chem
3	Urmila Sehrawat	Bio-Chem	8	Pooja Badhwar	Bio-Chem
4	Parth Kapoor	Bio-Science	9	Palak	Statistics
5	Mamta	Bio-Chem	10	Anupam	Statistics

Sri Venkateswara College

Project Title: To study the nutritional and socio-economic viability of consuming Olive oil versus Ground nut oil in the Indian context

Project Code: SVC -105



GROUNDNUT OIL: OLIVE OIL'S INDIGENOUS COUNTERPART

Findings (4-5 lines): Our results show that Extra Virgin oil is better with respect to antioxidant levels but too costly and not user friendly for Indian cooking because of its low smoke point. On the other hand Pomace olive oils used most commonly because of high smoke point is inferior or similar to groundnut oil on most counts and yet most costlier than groundnut oil. Our preliminary analysis of blood samples from people who have been consuming groundnut and olive oil since one year do not show any significant differences with respect to blood glucose and lipid profile levels.

Faculty: Dr. Hemlatha Reddy (Bio-Chemistry), Dr. Anju Kaicker (Bio-Chemistry), Dr. Oshima Sachin (Bio-Chemistry), Dr. Nandita Narayansamy (Bio-Chemistry), Mr. Krishna Kumar (Economics), Ms. Lalita TR (Statistics)

Mentor: Prof. Anil .K. Tyagi Dept of Biochemistry
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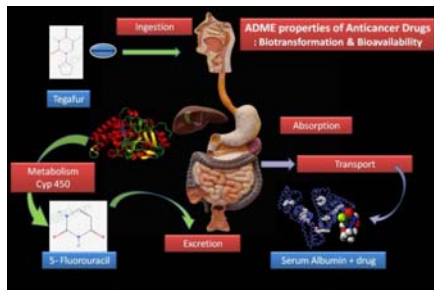
Students:

S.No.	Name	Department	S.No.	Name	Department
1	Kritika Sahni	Bio-Chem	7	Surya Rajappan	Economics
2	Triveni Menon	Bio-Chem	8	Avinash Mehrotra	Economics
3	Bharti Nawalpuri	Bio-Chem	9	Harshvardhan	Economics
4	Madhu Baghel	Bio-Chem	10	Urvi Gupta	Economics
5	Kanika Gupta	Bio-Chem	11	Kanika Wadhwa	Bio-Sciences
6	Sanjana Singh	Bio-Chem	12	Priyanka	Bio-Sciences
7	Shivam Nagpal	Statistics			

Sri Venkateshwara College

Project Title: Purification and characterization of Cytochrome P450 from liver for the study of P450 interaction with anticancer during drug molecules

Project Code: SVC -106



The ADME properties of the Anti-cancer drugs: Biotransformation and Bio-availability

Findings (4-5 lines): The ADME properties of various anticancer drugs were studied using computational tools. The interaction of methotrexate, vinblastin, etoposide and vincristine with serum proteins (BSA and HSA) was analyzed using extrinsic fluorescence to evaluate their bioavailability. The Cytochrome P-450 (CYP) was purified using salt fractionation and ion-exchange chromatography. The purified protein was run on polyacrylamide gel.

Faculty: Dr. Meenakshi Kuhar (Bio-Chemistry), Dr. Latha Narayan (Bio-Chemistry), Dr. Unnati Ahluwalia (Bio-Chemistry), Dr. Nandita Narayansamy (Bio-Chemistry), Dr. Sharda Pasricha (Chemistry), Dr. Pragya Gahlot (Chemistry)

Mentor: 1. Dr K Narayansamy
Executive Vice President, Sphaera Pharma
Manesar, Haryana
2. Dr. Shashank Deep
Associate Professor, Deptt. Of Chemistry
IIT Delhi.

Students:

S.No.	Name	Department	S.No.	Name	Department
1	Pushmeet Kohli	Bio-Chem	6	S Swetha	Bio-Chem
2	Illina Bareja	Bio-Chem	7	Vandita Bahl	Bio-Sciences
3	Smirti Arya	Bio-Chem	8	Nidhi Arya	Chemistry
4	Sambhavi Puri	Bio-Chem	9	Kritika Ahuja	Chemistry
5	Shalini Chandel	Bio-Chem	10	Astha Sharma	Chemistry

Sri Venkateshwara College

Project Title: An easy identification of few pathogenic gamma/epsilon proteobacteria by exploring the internal features of their 16S r RNA

Project Code: SVC -107



Students and faculty members of Innovative Project SVC-107 working in Computer lab at Sri Venkateswara College.

Findings (4-5 lines): Proteobacteria include various pathogenic strains such as the members of *Helicobacter*, *Salmonella*, *Campylobacter*, *Shigella* etc. Therefore, in the present work, attempts have been made to provide easy identification of four important genera upto species level. The number of species present under *Campylobacter*, *Helicobacter*, *Yersinia* and *Shigella* were identified using NCBI taxonomy (<http://www.ncbi.nlm.nih.gov/taxonomy/>). 16S rRNA gene sequences have been used for further analyses. Framework was generated for all four genera and it was found that majority of species from each genera were segregated well using the framework (but few species were also found to be heterogenous). Using the framework and restriction pattern for these genera, we were able to characterize some uncharacterized sequences in database. To summarize, framework and restriction pattern analyses has helped to easily identify pathogenic strains at their earlier stage of infection and to characterize the novel isolates.

Faculty: Dr. Manasi Verma (Zoology), Dr. P S Dhanraj (Zoology), Dr. Anju Kaicker (Bio-Chemistry), Mr. Dev Dutt Patel (Zoology)

Mentor: Prof. Rup Lal
Molecular Biology Lab, Deptt. of Zoology, University of Delhi
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Students:

S.No.	Name	Department	S.No.	Name	Department
1	Avantika Ghosh	Zoology	6	Ayush Puri	Zoology
2	Manasa S Murlidharan	Zoology	7	Samarth	Bio-Sciences
3	Arnab Kapuria	Zoology	8	Anjali Menon	Life Science
4	Nirajara Singhvi	Zoology	9	Bhanu Aggarwal	Life Science
5	Arshiya Rai	Zoology	10	Sonal	Life Science

Vivekananda College

Project Title: Assessing and Improving the Quality of Fat used in College Canteens

Project Code: VC -101



Students assessing the fat and food samples collected from various college canteens

Findings(4-5 lines): A total of 136 samples (34 samples each of fresh fat, used fat, fried food and non-fried foods) have been collected from colleges situated in north, south, east, west and central Delhi. 52.9% fresh oil, 67.6% used oil samples were identified to be hydrogenated. Trans fatty acids (n=24) have been detected in 25% fresh oil, used oil and fried food samples and 60.4% non-fried (baked) food products. Free fatty acid levels were found above prescribed limits (FSSA) in 82% used fat samples. No pesticide residues or adulteration with argemone oil and starch have been detected so far. Further analysis is in progress. Data indicate that the fat is being misused and is also not nutritionally safe. According to medical research regular consumption of such compromised quality of fats can increase the risk of developing degenerative diseases particular cancer and cardio-vascular disorders.

Faculty: Dr. Sukhneet Suri (Food Technology), Mrs. Purnima Vir (Food Technology),
Dr.Saroj Kumari (Hindi).

Mentor: Dr. Sujata Pandit
Head Research & Development (Food and Nutrition), FICCI Research and
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Students:

S.No.	Name	Department	S.No.	Name	Department
1	Priyanka Kumari	Food Tech.	6	Tanya Devgan	Food Tech.
2	Priyanka Kanwal	Food Tech.	7	Aimaan Sadat	Food Tech.
3	Beauty	Hindi	8	Ratananjali Singh	Food Tech.
4	Anjum Saifi	Food Tech.	9	Umang Wahal	Hindi
5	Archana Verma	Food Tech.	10	Pragati Garg	Hindi

Zakir Husain Delhi College

Project Title: Feasibility studies to improve quality of living and development of low cost efficient techniques to purify potable water in villages: Case study with reference to villages of Ajmer (Rajasthan)

Project Code: ZH -101



Preliminary work being carried out by students to fabricate solar water distiller

Findings (4-5 lines): In this project, we have selected six villages of Ajmer district as our subject with focus on suitability and availability of potable water for drinking purpose. We have done extensive survey in these villages with the help of local people and collected samples of drinking water from different sources (Ponds, well, Handpump, Borewell etc). The chemical analysis of these samples revealed that the potable water contained high TDS, salinity and hardness values close to the rejection limit of standard values. Based on these findings we decided to fabricate a Solar water purifier using renewable energy. We have developed an innovative integrated system for water distillation and purification for community use as well as individual families.

Faculty: Dr. Swati Arora (Physics), Dr. Mohd. Fahim (Physics), Dr. Anuradha Marwah (English), Dr. Samta Goyal (Chemistry)

Mentor: Dr. R.P. Tandon, Deptt. of Physics & Astrophysics D.U.
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Students:

S.No.	Name	Department	S.No.	Name	Department
1	Arshi Chodhury	Chemistry	6	Saral Baweja	Chemistry
2	Priyanka	Chemistry	7	Divyansh Singh	Chemistry
3	Jyoti Sharma	Chemistry	8	Mohd. Usaid	Chemistry
4	Priya Kaushik	Chemistry	9	Mohit Singh	Electronics
5	Sudeep Dwiedi	Chemistry	10	Harsh Sharma	Physical Sciences

Innovation Projects in News.

S.No.	Project Code	Newspaper Report/Publication	Date
1	KC-101	Education Times/Navbharat Times	6 th Feb, 2013
2	SAC-101	Facebook page on project	14 th Feb, 2013
3	IHE-101	Dainik Bhaskar	30 th Oct, 2012
4	LI-102	Times of India	2 nd Feb, 2013
5	SVC-101	Journal of Pharmacy Research/Drug Invention Today	3 rd Nov, 2012/7 th Nov, 2012
6	SAC-102	Navbharat Times/Dainik Jagran	3 rd Feb, 2013
7	HR-101	National Duniya	2 nd Feb, 2013
8	SLC Eve-102	Navbharat Times/Veer Arjun	15 th Jan, 2013
9	SLC-101	Publish a Book on Weekly markets	1 st Feb, 2013
10	SAC-101	Education Times	28 th Jan, 2013
11	GC-103	Times City, The Hindu, Jansatta	19 th Jan, 2013
12	SSC-102		15 th -17 th Jan, 2013
13	DS-104	Times City	28 th Jan, 2013
14	LSR-102	Hindustan Times	13 th Jan, 2013
15	RLA-101	Dainik Jagran/Amar Ujala	4 th Oct, 2012
16	ZH-101	Deccan Herald	10 th Jan, 2013
17	SGTB-102	Dainik Bhaskar	21 st Nov, 2013
18	ZH-101	Deccan Herald	23 rd Oct, 2012

19	SLC Eve-101	Hindustan/Prabhat Khabar	11 Nov, 2012
20	SAC-101	Indian Express	2 nd Jan, 2013
21	LSR-101	Education Times	5 th Nov, 2012
22	SSC-103	The Statesman	21 st Oct, 2012
23	SGTB-103	Education Times	19 th Nov, 2012
24	KMC-105	Amar Ujala/Dainik Jagran	27 th Oct, 2012